

# Soft Landscape Specification

December 2016

The Dice, St Andrew's Park, Uxbridge

2682-SP-01

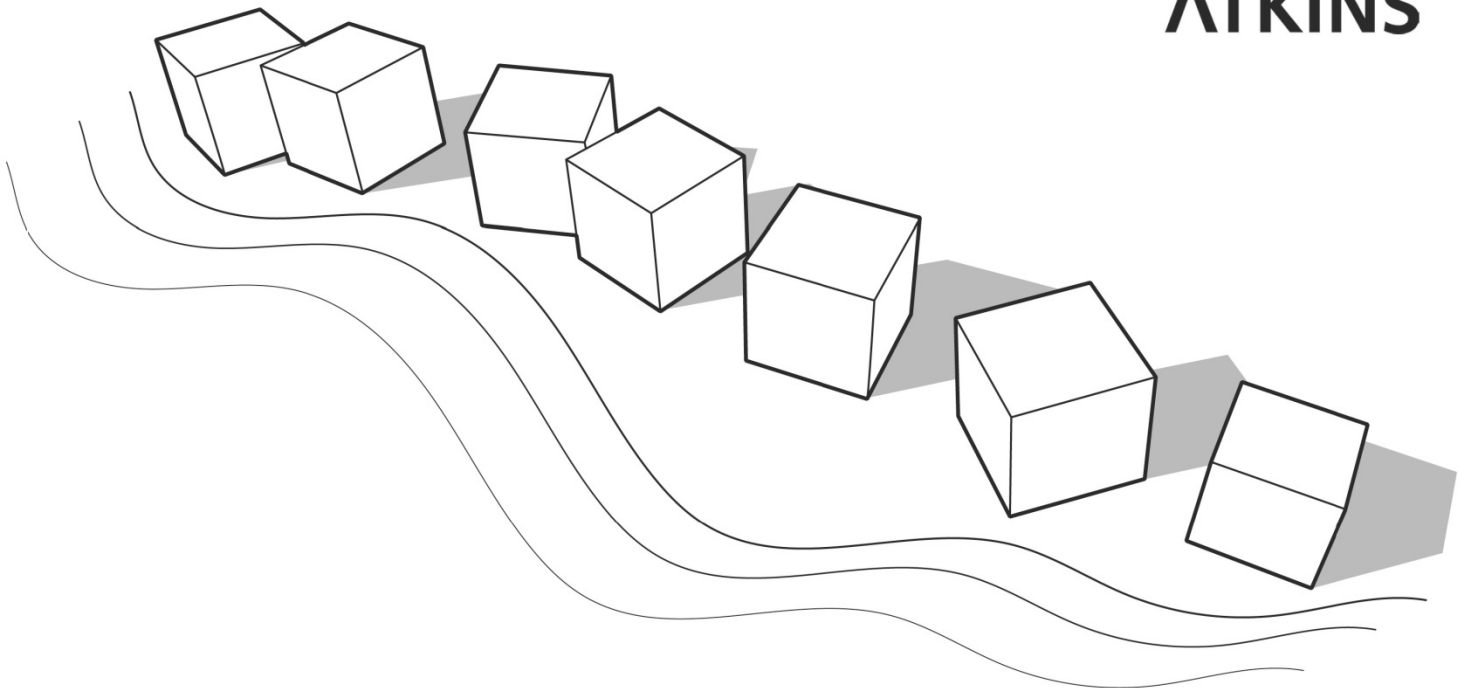


**PRP**

Allen Pyke Associates

Landscape architecture | Urban design | Environmental planning

**ATKINS**



**Turley**

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**Q**

**Paving/Planting/Fencing/Site furniture**

## Q28 Topsoil and soil ameliorants

### SYSTEM OUTLINE

- 110 NATURALLY OCCURRING TOPSOIL SYSTEM FOR ALL LANDSCAPE AREAS
- Topsoil: Site sourced topsoil .
  - Ameliorants: As required following topsoil analysis.
  - Accessories: None.
- 120 MANUFACTURED TOPSOIL/ GROWING MEDIA SYSTEM FOR ALL SOFT LANDSCAPE AREAS, WHERE SITE SOURCED TOPSOIL NOT AVAILABLE
- Topsoil/ growing media type: Imported manufactured topsoil.
  - Ameliorants: None.
  - Accessories: None.

### PRODUCTS

- 300 PREPARATION MATERIALS GENERALLY
- Purity: Free of pests and disease.
  - Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
  - Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
    - Corrosive, explosive or flammable.
    - Hazardous to human or animal life.
    - Detrimental to healthy plant growth.
  - Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
  - Objectionable odour: None.
  - Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.
- 305 PERMITTED MATERIALS
- Materials: Bark and Composted green waste.
  - Give notice: before ordering or using.
  - Declaration of compliance: Not required.
- 310 MATERIALS NOT PERMITTED
- Materials: Peat.
- 315 IMPORTED TOPSOIL TO BS 3882
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
  - Standard: To BS 3882.
  - Classification: Multipurpose.
    - Grade: Within the parameters of 'sandy loam' textural class.
  - Source: Submit proposals.
    - Product reference: Submit proposals.

330 IMPORTED MANUFACTURED TOPSOIL/ GROWING MEDIUM FOR TREE PITS AND PODIUM PLANTING

- Type: Urban tree planting medium.
  - Grade: Within the parameters of 'sandy loam' textural class.
- Source: GT Specifier / Green Tech.
  - Product reference: Heathrow GT2.

370 TEMPORARY CROPS GROWN ON SITE ON TEMPORARY TOPSOIL STORAGE HEAPS

- Seed mix: Leguminous seed mix.
- Source: Contractor's choice.
  - Product reference: Contractor's choice.

390 FERTILIZERS TO BE INCORPORATED INTO TOPSOIL AND MANUFACTURED TOPSOIL TO SUIT SOIL REPORT RECOMMENDATIONS

- Type: Slow release fertilizer and Sanitized and stabilized compost fertilizer.
- Source: Contractor's choice.
  - Product reference: Contractor's choice.

### EXECUTION

610 TOPSOIL ANALYSIS

- Soil to be analysed: onsite topsoil and imported topsoil.
- Soil analyst: Tim O'Hare Associates LLP  
Howbery Park  
Wallingford  
Oxfordshire  
OX10 8BA  
T: +44 (0)1491 822664 .
- Samples: Collect in accordance with BS 3882.
- Submit:
  - Declaration of analysis;
  - Chemical analysis;
  - Chemical analysis and contaminants;
  - Nutrient content, pH value and textural classification; and - Phytotoxic and CLEA elements .
  - Report detailing soil analyst's recommendations.

620 IMPORTING TOPSOIL

- Give notice: Before stripping topsoil for transfer to site.
  - Notice period: 7 days.

625 SAMPLE LOADS FOR IMPORTED TOPSOIL

- Deliver to site a sample load: of not less than 5 m<sup>3</sup>.
- Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
  - Notice period: 7 days.

- 630 DOCUMENTATION FOR IMPORTED TOPSOIL FOR ALL SOFT LANDSCAPE AREAS
- Timing: Submit at handover.
  - Contents:
    - Full description of all soil components.
    - Record of source for all soil components.
    - Record drawings showing the location and depth of all soils by type and grade.
    - Declaration of analysis: in accordance with BS 3882, Annex E.
  - Number of copies: 1.
- 635 DOCUMENTATION FOR COMPOST AND COMPOSTED MATERIALS FOR IMPORTED SOIL IMPROVERS
- Timing: Submit at handover.
  - Contents:
    - Full description of all compost components.
    - Record of source for all compost components.
    - Analyst's report for each test carried out.
    - Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
    - Quality Compost Protocol certification: Required.
  - Number of copies: 1.
- 650 NOTICE
- Give notice before:
    - Setting out.
    - Spreading topsoil.
    - Applying herbicide.
    - Applying fertilizer.
    - Visiting site during maintenance period.
  - Period of notice: One week.
- 655 MECHANICAL TOOLS
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 660 GRADING SUBSOIL
- General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
  - Loosening:
    - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
    - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
    - Rock and chalk subgrades: Lightly scarify to promote free drainage.
  - Areas of thicker topsoil: Excavate locally.
  - Avoid over compaction.
- 665 SUBSOIL SURFACE PREPARATION
- General: Excavate and/ or place fill to required profiles and levels, as section D20.
  - Loosening:
    - Light and non-cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm.
    - Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm.
    - Rock and chalk subgrades: Lightly scarify to promote free drainage.
  - Stones: Immediately before spreading topsoil, remove stones larger than 75 mm.
  - Remove from site: Arisings, contaminants and debris and Builders rubble.

- 670 INSPECTING FORMATIONS
- Give notice: Before spreading topsoil for all proposed planted areas including tree pits.
  - Notice period: 7 days.
- 680 SURPLUS TOPSOIL TO BE RETAINED
- Generally: Spread and level on site:
    - Locations: Any areas where topsoil is required for new planting.
    - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- 685 SURPLUS MATERIALS TO BE REMOVED
- Topsoil: Remove from site topsoil remaining after completion of all landscaping work.
  - Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- 690 TOPSOIL STORAGE HEAPS
- Location: Throughout the site.
  - Height (maximum): 1.0 m.
  - Width (maximum): 4.0 m.
    - Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
  - Protection:
    - Do not place any other material on top of storage heaps.
    - Do not allow construction plant to pass over storage heaps.
    - Prevent compaction and contamination, by fencing and covering as appropriate.
- 695 CULTIVATION
- Compacted topsoil: Break up to full depth.
  - Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
    - Depth: 150 mm.
    - Particle size (maximum): 15 mm.
    - Timing: Within a few days before planting.
    - Weather and ground conditions: Suitably dry.
  - Surface: Leave regular and even.
  - Levels:
    - 25 mm above adjoining paving or kerbs;
    - 50 mm above adjoining lawns; and
    - Minimum 150 mm below dpc of adjoining buildings.
  - Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 30mm.
  - Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.
- 700 GRADING OF TOPSOIL
- Topsoil condition: Reasonably dry and workable.
  - Contours: Smooth and flowing, with falls for adequate drainage.
    - Hollows and ridges: Not permitted.
  - Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
  - Give notice: If required levels cannot be achieved by movement of existing soil.

705 HANDLING TOPSOIL

- Aggressive weeds: Give notice and obtain instructions before moving topsoil.
- Plant: Select and use plant to minimize disturbance, trafficking and compaction.
- Contamination: Do not mix topsoil with:
  - Subsoil, stone, hardcore, rubbish or material from demolition work.
  - Other grades of topsoil.
- Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit less 3%, to BS 1377-2.

710 SPREADING TOPSOIL

- Temporary roads/ surfacing: Remove before spreading topsoil.
- Layers:
  - Depth (maximum): 150 mm.
  - Gently firm each layer before spreading the next.
- Depths after firming and settlement (minimum): Grass areas: 100mm, All planted areas (including tree pits): 300mm.
- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 LOOSE TIPPING OF TOPSOIL

- General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

720 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 30 mm.
- Below dpc of adjoining buildings: Not less than 150 mm.
- Shrub areas: Higher than adjoining grass areas by 50 mm.
- Within root spread of existing trees: Unchanged.
- Adjoining soil areas: Marry in.
- Thickness of turf or mulch: Included.

805A APPLYING SOIL AMELIORANT AS REQUIRED

- Type: TO SUIT SOIL REPORT RECOMMENDATIONS.
- Locations: All planting areas.
- Timing: Prior to cultivation.

820 APPLYING GENERAL FERTILIZER SLOW RELEASE

- Locations: All planting areas.
- Application: Spread evenly, carefully incorporating below mulch materials.
  - Timing: Immediately before cultivation.
  - Application rate: As manufacturer's recommendations..
  - Other requirements: None.

**COMPLETION**

905 APPLYING MAINTENANCE FERTILIZER

- Time of year: March or April.
- Application: Evenly spread, carefully incorporating below mulch materials.
- Rate: To suit soil report recommendations.



## **Q30 Seeding/turfing**

### **GENERAL INFORMATION/REQUIREMENTS**

- 115 SEEDED AND TURFED AREAS
- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
  - Appearance: A closely knit, continuous ground cover of even density, height and colour.
- 120 CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.
- 145 WATERING
- Quantity: Wet full depth of topsoil.
  - Application: Even and without displacing seed, seedlings or soil.
  - Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.
- 150 WATER RESTRICTIONS
- Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.
- 160 NOTICE
- Give notice before:
    - Setting out.
    - Applying herbicide.
    - Applying fertilizer.
    - Preparing seed bed.
    - Seeding or turfing.
    - Visiting site during maintenance period.
  - Period of notice: 1 week.
- 170 SETTING OUT
- Boundaries: Mark clearly.
  - Delineation: In straight lines or smoothly flowing curves as shown on drawings.

### **PREPARATION**

- 210 HERBICIDE FOR ALL GRASSED AREAS
- Type: Suitable for suppressing perennial weeds.
  - Timing: Allow fallow period before cultivation.
    - Duration: As manufacturer's recommendation.
- 212 SEED BED CLEANING BEFORE SOWING ALL GRASSED AREAS
- Operations: Kill pernicious weeds with selective contact herbicide..

- 280 FINAL CULTIVATION
- Timing: After grading and fertilizing.
  - Seed bed: Reduce to fine, firm tilth with good crumb structure.
    - Depth: 25 mm.
    - Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
    - Remove surface stones/earth clods exceeding:
      - General areas: 10 mm.
      - Fine lawn areas: 10 mm.
  - Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

### **SEEDING**

- 311 GRASS SEED FOR ALL AMENITY GRADE GRASS AREAS
- Supplier: British Seed Houses.
    - Mixture reference: A19 (All Purpose Landscaping).
  - Application rate: 34-50 g/m<sup>2</sup>.
- 312A SEED MIXTURE FOR LONG GRASS / WILDFLOWER MEADOW AREAS
- Supplier: Emorsgate Seeds.
    - Mixture reference: EM3 - Special General Purpose Meadow Mixture.
  - Origin (as defined in the National Plant Specification): Native UK.
  - Application rate: 4 g/m<sup>2</sup>.
- 319 QUALITY OF SEED FOR ALL GRASSED AREAS
- Freshness: Produced for the current growing season.
  - Certification: Blue label certified varieties.
    - Standard: EC purity and germination regulations.
    - Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
  - Samples of mixtures: Submit when requested.
- 330 SOWING
- General: Establish good seed contact with the root zone.
  - Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
    - Distribution: 4 equal sowings.
- 335 GRASS SOWING SEASON
- Grass seed generally: April to October.
- 336 WILDFLOWER SOWING SEASON
- Wildflower seed generally: March to May or August to October.
- 350 TURF EDGING TO SEEDED AREAS ADJCENT TO ALL HARD SURFACES
- Standard: To BS 3969, with no perennial ryegrass.
    - Seed mix: Similar to seeded area.
  - Timing: Before sowing.
  - Preparation: Rake back a 750 mm wide margin around prepared seed beds.
    - Level of seed bed: Married in with turf.
  - Placement: Single row laid end to end and trimmed to a line.
  - Watering: On completion.

## TURFING

- 405 CULTIVATED TURF FOR TURF EDGING TO GRASS SEEDED AREAS
- Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
  - Seed mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bent.
  - Properties of soil used for turf production: Peat-free, well drained sandy loam.
- 420 DELIVERY AND STORAGE
- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
  - Frosty weather or waterlogged ground: Do not lift turf.
  - Delivery: Arrange to avoid need for excessive stacking.
  - Stacking height (maximum): 1 m.
  - Dried out or deteriorated turf: Do not use.
- 423 INSPECTION OF TURF
- Give notice: Before lifting turf for all grassed areas.
- 428 COMPOST DRESSING FOR TURF
- Type: Sanitized and stabilized compost.
  - Supplier: Contractor's choice.
    - Product reference: Contractor's choice.
  - Standard: To PAS 100.
  - Horticultural parameters:
    - pH (1:5 water extract): 7.0-8.7.
    - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
    - Moisture content (m/m of fresh weight): 35-55%.
    - Organic matter content (minimum): 25%.
    - Grading (air dried samples): 100% passing screen mesh aperture of 10 mm.
    - Carbon:Nitrogen ratio (maximum): 20:1.
  - Texture: Friable.
  - Objectionable odour: None.
  - Composting Association certification: Required.
  - Declaration of analysis: Submit.
  - Additional analyses: Not required.
  - Samples: Not required.
  - Application rate: 2-4 kg/m<sup>2</sup>.
  - Timing: Apply prior to cultivation.

#### 430 TURFING GENERALLY

- Time of year: Autumn, early winter or as agreed.
- Timing of laying:
  - Spring and summer: Within 18 hours of delivery.
  - Autumn and winter: Within 24 hours of delivery.
- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
- Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- Edges: Whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and fill hollows with fine soil.
- Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers.
- Dressing, brushed well in to completely fill all joints: Compost.
- Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

#### 450 TRIMMING TURF

- Newly planted tree pits: Neatly cut away around individual trees.
  - Diameter: 1000 mm.
  - Tree pit surface: Respread existing mulch.

### **PROTECTING/CUTTING**

#### 530A FIRST CUT OF AMENITY GRADE GRASSED AREAS

- Timing: When grass is reasonably dry.
  - Height of initial growth: 40-75 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 40 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site.

#### 540 FIRST CUT OF LONG GRASS / WILDFLOWER MEADOW AREAS

- Height of initial growth: As per Landscape Maintenance Specification 2682-MP-01.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: As per Landscape Maintenance Specification 2682-MP-01.
- Mower type: As per Landscape Maintenance Specification 2682-MP-01.
- Arisings: As per Landscape Maintenance Specification 2682-MP-01.

#### 590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

## MAINTENANCE

### 610 FAILURES OF SEEDING/TURFING

- Duration: Carry out the following operations from completion of seeding/ turfing until: practical completion.
- Defective materials or workmanship: Areas that have failed to thrive.
  - Exclusions: Theft or malicious damage.
- Method of making good: Recultivation and reseedling/ returfing.
- Timing of making good: The next suitable planting season.

### 620 MAINTAINING GENERAL GRASSED AREAS

- Duration: Carry out the following operations from completion of seeding/ turfing until: practical completion.
- Maximum height of growth at any time: 75 mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height of 25 mm.
  - Arisings: Remove.
- Bulb planting areas: Do not cut until bulb foliage has died down.
- Trimming: All edges.
  - Arisings: Remove.
- Weed control: Substantially free of broad leaved weeds.
  - Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
  - Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: Contractor's choice.

## Q31 External planting

### GENERAL INFORMATION/ REQUIREMENTS

- 112 SITE CLEARANCE GENERALLY
- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
  - Stones: Remove those with any dimension exceeding 50 mm.
  - Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
  - Vegetation: Clear any scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings.
  - Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
  - Additional requirements: Remove remnants of previous development.
- 118 SOIL CONDITIONS
- Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
  - Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.
- 120 CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.
    - Strong winds: Do not plant.
- 125A TIMES OF YEAR FOR PLANTING
- Deciduous trees and shrubs: Late October to late March.
  - Conifers and evergreens: September/ October or April/ May.
  - Herbaceous plants: September/ October or March/ April.
  - Container grown plants: At any time if ground and weather conditions are favourable.
  - Wildflower plugs: Late August to mid November or March/ April.
  - Dried bulbs, corms and tubers: September/ October.
    - Watering and weed control: Provide as necessary.
- 130 MECHANICAL TOOLS
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 145 WATERING
- Quantity: Wet full depth of topsoil.
  - Application: Even and without damaging or displacing plants or soil.
  - Frequency: As necessary to ensure establishment and continued thriving of planting.
- 150 WATER RESTRICTIONS
- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

- 160 NOTICE
- Give notice before:
    - Setting out.
    - Applying herbicide.
    - Applying fertilizer.
    - Delivery of plants/ trees.
    - Planting shrubs.
    - Planting trees into previously dug pits.
    - Watering.
    - Visiting site during maintenance period.
  - Period of notice: One week.
- 165 PREPARATION, PLANTING AND MULCHING MATERIALS
- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
  - Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit.
    - Certified materials: Composted green waste and Sanitized and stabilized compost.
    - Give notice before ordering or using.
- 200 PLANTS/ TREES - GENERAL
- Condition: Materially undamaged, sturdy, healthy and vigorous.
  - Appearance: Of good shape and without elongated shoots.
  - Hardiness: Grown in a suitable environment and hardened off.
  - Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
  - Budded or grafted plants: Bottom worked.
  - Root system and condition: Balanced with branch system.
    - Standard: The National Plant Specification.
  - Species: True to name.
  - Origin/ Provenance: Grown in the United Kingdom for at least one growing season, unless otherwise approved.  
Definition: Origin and Provenance have the meaning given in the National Plant Specification.
- 215 PLANTS/ TREES - SPECIFICATION CRITERIA
- Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification.
- 225 BULBS/ CORMS/ TUBERS
- Condition: Firm, entire, not dried out or shrivelled.
  - Health: Free from pests, diseases and fungus.
  - Handling: Remove from packaging immediately.
  - Storage: Permitted only when necessary.
    - Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
    - Duration: Minimum period.
    - Temperature: 18-21°C.
- 235 CONTAINER GROWN PLANTS/ TREES
- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
  - Plants: Centred in containers, firmed and well watered.
  - Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
  - Hardiness: Grown in the open for at least two months before being supplied.
  - Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

#### 245A LABELLING AND INFORMATION

- General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
  - Full botanical name.
  - Total number.
  - Number of bundles.
  - Part bundles.
  - Supplier's name.
  - Employer's name and project reference.
  - Plant specification, in accordance with scheduled National Plant Specification categories.
- Additional information: Submit: Country of origin and Date supplied and consignment details or reference.

#### 260 PLANT/ TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
  - Price.
  - Difference from specified plants/ trees.
- Approval: Obtain before making any substitution.

#### 265 PLANT HANDLING, STORAGE TRANSPORT AND PLANTING

- Standard: To HTA 'Handling and establishing landscape plants'.
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Coextruded polyethylene bags with black interior and white exterior.
- Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
- Planting: Upright or well balanced with best side to front.

#### 280 TREATMENT OF TREE WOUNDS

- Cutting: Keep wounds as small as possible.
  - Cut cleanly back to sound wood using sharp, clean tools.
  - Leave branch collars. Do not cut flush with stem or trunk.
  - Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

#### 285 PROTECTION OF EXISTING GRASS

- General: Protect areas affected by planting operations using boards/ tarpaulins.
  - Excavated or imported material: Do not place directly on grass.
  - Duration: Minimum period.

#### 290 SURPLUS MATERIAL

- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

### **PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS**

#### 300 HERBICIDE TO CLEAR OVERGROWN BEDS

- Locations: All planting areas.
- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
  - Duration (minimum): As manufacturer's recommendation.



305 WEED CONTROL FOR INVASIVE NON-NATIVE WEEDS

- Locations: All planting areas.
- General: Prevent weeds from seeding and perennial weeds from becoming established, by contractor's choice of herbicide.

375 CULTIVATION

- Compacted topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
  - Depth: to a maximum of 300mm.
  - Timing: Within a few days before planting.
  - Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels:
  - 25 mm above adjoining paving or kerbs;
  - 50 mm above adjoining lawns; and
  - Minimum 150 mm below dpc of adjoining buildings.
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50 mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

**PLANTING SHRUBS/ HERBACEOUS PLANTS/ BULBS**

400 RANDOM PLANT LAYOUT TO ALL BEDS

- Spacing: Evenly, avoiding straight lines.
- Density: As plant schedule.

401 REGULAR PLANT LAYOUT TO HEDGE PLANTING

- Spacing: In regular, staggered rows.
- Density: As plant schedule.

405 SHRUB PLANTING PITS

- Timing: Excavate 1-2 days (maximum) before planting.
- Sizes: Wide enough to accommodate roots when fully spread and 75 mm deeper than root system.
- Pit bottom improvement Not required.
- Backfilling material: Reuse excavated material..

420A CLIMBING PLANTS

- Planting: 150 mm clear of supporting structure (e.g. wall/ fence) with roots spread outward.
  - Branches: Lightly secured to supports.
- Climber supports: Stainless steel wire.
  - Base height: 600 mm above ground.
  - Centres: As shown on Planting Plan
  - Distance from wall: 50 mm.
- Fixings: Galvanized screw eyes.
  - Centres: 1.5 m.

445 PLANTING BULBS/ CORMS/ TUBERS

- Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
- Backfilling: Finely broken soil. Lightly firm to existing ground level.
- Naturalized planting in existing grassed areas:
  - Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
  - Planting: Neatly remove a plug of turf and replace after planting.

- 470 FORMAL HEDGES
- Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
  - Planting: In trenches large enough to take full spread of roots. Set out plants evenly.
- 480A AFTER PLANTING
- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
  - Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
  - Top dressing: Not required.
- 485 MULCHING PLANTING BEDS
- Material: Medium grade bark mulch.
    - Purity: Free of pests, disease, fungus and weeds.
    - Recycled content: Submit proposals.
  - Preparation: Clear all weeds. Water soil thoroughly.
  - Coverage: 50 mm depth.
  - Finished level of mulch: 30 mm below adjacent grassed or paved areas.

### **PLANTING TREES**

- 505A TREE PITS
- Sizes: PIT SHOULD BE NO DEEPER THAN THE ROOTBALL/CONTAINER, AND MIN 75-100mm WIDER THAN THE ROOT BALL.
  - Sloping ground: Maintain horizontal bases and vertical sides with minimum depth throughout.
  - Pit bottoms: DO NOT BREAK UP UNLESS DRAINAGE ISSUE IS APPARENT AND FOLLOWING INSTRUCTION - SEEK CLARIFICATION FROM LANDSCAPE ARCHITECT BEFORE IF UNSURE.
  - Pit sides: Scarify.
  - Backfilling material: Reuse excavated material - CARE MUST BE TAKEN TO ENSURE TOP AND SUB SOIL HORIZONS - IF IN DOUBT ASK.
  - Accessories: Perforated plastics irrigation/ ventilation pipe.
- 512 TREE PIT ACCESSORIES
- Locations: All tree pits.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Type: Perforated plastics irrigation pipe, 50 mm diameter, in circle above and around sides of rootball, with plastics cap.
- 525 SEMIMATURE TREES
- Standard: Prepare roots and transplant to BS 4043.
  - Backfilling material: As clause 585.
  - Support: Short double staking.
  - Protection: Not required.
- 535 STAKING GENERALLY
- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
    - Preservative treatment: Not required.
  - Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
  - Stake size (minimum): 50 mm diameter.

- 575 SHORT DOUBLE STAKING FOR STANDARD TREES
- Staking: Drive stakes vertically at least 300 mm into bottom of pit on either side of tree position before planting.
    - Backfilling: Consolidate material around stakes.
  - Height of stakes: Cut to approximately 600 mm above ground level.
  - Cross bar: Flexible webbing within 25 mm of top of stake.
    - Firmly fix on windward side of tree and as close as possible to stem.
  - Ties: Biodegradable, adjustable ties.
  - Tying: Secure tree firmly but not rigidly to cross bar.

- 586A TREE BACKFILLING MATERIAL
- Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required. CARE MUST BE TAKEN TO MAINTAIN THE EXISTING TOP/SUB SOIL PROFILES - IF IN DOUBT, ASK.
  - Ameliorant/ Conditioner: Sanitized and stabilized compost.
    - Application rate: To soil report recommendations.
  - Fertilizer: Slow release.
    - Application rate: To suit soil report recommendations.

- 590 MULCHING TREES
- Material: Medium grade bark mulch.
    - Purity: Free of pests, disease, fungus and weeds.
    - Recycled content: Submit proposals.
  - Preparation: Clear all weeds. Water soil thoroughly.
  - Coverage: 50mm depth, in a circular area of 500 mm radius measured from the tree stem.
  - Finished level of mulch: 30 mm below adjacent grassed or paved areas.

#### **PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS**

- 710 MAINTENANCE
- Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period.
  - Frequency of maintenance visits: In accordance with the agreed maintenance schedule.

- 720 FAILURES OF PLANTING
- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
    - Exclusions: Theft or malicious damage after completion.
    - Rectification: Replace with equivalent plants/ trees/ shrubs.
  - Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
  - Timing of making good: During the next suitable planting season.

- 740 CLEANLINESS
- Soil and arisings: Remove from hard surfaces and grassed areas.
  - General: Leave the works in a clean tidy condition at completion and after any maintenance operations.

#### 750 PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub.
  - Diameter (minimum): The larger of 1 m or the surface of original planting pit.
  - Keep planting beds clear of weeds: By hoeing, or by use of approved non-residual herbicides where weeds are persistent.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Staking: Check condition of stakes, ties, guys and guards.
  - Broken or missing items: Replace.
  - Rubbing: Prevent.
  - Ties: Adjust to accommodate growth.
  - Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
  - Frequency of checks: At each scheduled maintenance visit.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather.
  - Timing: After dusk.
- Watering: Contractor's choice.

#### 755 PLANTING MAINTENANCE - FERTILIZER

- Time of year: March or April.
- Fertilizer: Slow release.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Application: Evenly spread, carefully incorporating below mulch materials.
- Application rate: To suit soil report recommendations.

#### 760 PLANTING MAINTENANCE - PRUNING

- General: Prune to promote healthy growth and natural shape.
  - Dead, dying, diseased wood and suckers: Remove.
  - Timing: As appropriate to the species.
  - Trees: Favour a single central leading shoot.
- Arisings: Remove.

#### 780 MAINTENANCE INSTRUCTIONS

- General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide a schedule of any ongoing maintenance problems experienced during the rectification period.

#### 790 FINAL MULCHING

- Timing: At end of the maintenance period.
- Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- Planting beds: Remulch.  
Depth (minimum): 50 mm.
- Trees: Remulch.  
Depth (minimum): 50 mm.

For further information contact

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